

Claims

1. Fuel cell comprising:

- 5 - a stack comprising a first electrode (14), an electrolytic membrane (4) provided with front and rear faces (4a, 4b), and a second electrode (16),
- and first and second current collectors (13, 15) integrated in the stack and respectively corresponding to the first and second electrodes (14, 16), each current collector comprising a metallic deposit and being
- 10 provided with a plurality of transverse passages for passage of a fluid,
- cell characterized in that the first and second current collectors (13, 15) are respectively arranged on the front and rear faces (4a, 4b) of the electrolytic membrane (4), between the electrolytic membrane (4) and the corresponding electrode (14, 16).

15 2. Fuel cell according to claim 1, characterized in that the first and second current collectors (13, 15) are both structured in the form of a grid.

20 3. Fuel cell according to claim 1, characterized in that the first and second current collectors (13, 15) are both structured in the form of a comb.

 4. Fuel cell according to any one of the claims 1 to 3, characterized in that the first and second current collectors (13, 15) are porous, the transverse passages being formed by the pores of the current collectors (13, 15).

25 5. Fuel cell according to any one of the claims 1 to 3, characterized in that the first and second current collectors (13, 15) each comprise an alternation of porous zones and non-porous zones, the transverse passages being formed by the pores of the porous zones.

6. Fuel cell according to any one of the claims 1 to 5, characterized in that the metal of first and second current collectors (13, 15) is chosen from noble metals.